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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,177	03/11/2002	Harald Martin	P21938	4569
7055	7590	08/10/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			BHAT, NINA NMN	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/030,177

Applicant(s)

MARTIN ET AL.

Examiner

N. Bhat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's arguments presented 5-17-2005 has been fully and carefully considered. The examiner apologizes for not checking the box on the form 326 acknowledging foreign priority and National stage entry. The examiner acknowledges the priority. Applicant's arguments regarding the 102(b) rejection is persuasive however, the claims are deemed unpatentable over Rotter under 35 U.S.C. 103 which will be set forth below:

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-14 and 23-28 remain rejected and claims 15-22 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rotter USP 4,123,332 for reasons of record in the office action of 10-27-2004 and the following:

Rotter teaches a process and apparatus for carbonizing a comminuted solid carbonizable material wherein the comminuted material is passed through a horizontal reactor vessel. The conditions are set for the passage of the material through a reaction zone by paddle-like impellers mounted on a shaft and the heating takes place in the reaction zone between 400°C to 900°C. [Note the abstract]

Applicant has argued that Rotter pyrolyzes, and in applicant's invention, the reaction is thermal decomposition. Applicant has nothing in the claims which would control which favors thermal decomposition rather than pyrolysis. There are no positive set forth limitation in the apparatus or process which provides control. There is nothing in Rotter which is drafted with "comprising" language which would exclude the temperature control. The range for controlling the reactor in Rotter would encompass thermal decomposition it need not be in pyrolyzing conditions. Also applicant argues that there is no joint extraction as an exhaust gas solids mixture, it can be seen that the gas-liquid is separated from the reactor from line 49-50 in Figure 1, and the solid stream is separated as a bottoms stream. To separate the stream to include gas entrained solids and or liquid gas stream would have been obvious to one having ordinary skill in the art at the time the invention was made because the reference teaches and recognizes that there are three phases coming from the decomposition reactor or the reactor and to choose that the gas and solids stream comes out and the liquid as a separate stream would have been obvious to one having ordinary skill in the art. It is maintained that although not specifically claimed in Rotter the apparatus is capable of a method for removing recoverable waste products. Rotter teaches such an apparatus. Rotter teaches feed in recoverable waste products and non -recoverable waste products in one end of the horizontally fixed container or reactor which is continuously or discontinuously transports the material. With respect to heat transfer this can be adjusted based on the indirect heat which is taught as being used in order to control the temperature. As stated above, there is nothing in the apparatus which would provide

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60-80% of the energy being carried out on the material in the first quarter of the container. There are no controls being claimed nor specific features in the apparatus claimed which would preclude Rotter as reference. It is maintained that one familiar with moving bed reactors as well as pyrolytic or thermolytic decomposition would have been capable of controlling the inside of the reactor of Rotter in order to provide the heat transfer characteristics as claimed by applicant. It is maintained that Rotter does render applicant's claims obvious to one having ordinary skill in the art at the time the invention was made.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



N. Bhat

**NINA BHAT**  
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